

Case Report

Acute Immediate Urticarialike Reaction to i.v. Injected Photofrin

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In an attempt to treat a patient with Photodynamic Therapy (PDT) an immediate urticarial type reaction occurred after the injection with Photofrin. We report the first occurrence of such reaction. *Lasers Surg Med* 20:97-98, 1997.

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Key words: photofrin; hypersensitivity reaction; photodynamic therapy

INTRODUCTION

Photodynamic Therapy (PDT) involves administration of the tumor localizing photosensitizer Photofrin (Quadralogic Technologies Inc., Vancouver, B.C., Canada) followed 24 hours later by application of 630 nm red light from an argon-pumped tunable dye laser. PDT has been used to treat tumors of the skin, lung, bladder, head and neck, breast, and female lower genital tract with promising results [1-6]. The major side effect of the treatment is a transient cutaneous photosensitivity, lasting 4-6 weeks because of prolonged retention of the photosensitizer in the skin [7]. Patients must therefore avoid sunlight and bright artificial lights for this period of time. PDT has diagnostic and therapeutic applications in cancer management. If tissues containing photosensitizer are illuminated with UV radiation at 400 nm, a red fluorescence is emitted which can aid in the delineation of tumor margins before therapy [7]. After identification of tumor sites, photoactivation is initiated by using red light at 630 nm, delivered through flexible fiberoptics for applica-

tion to tissues. We here report a case study of an acute immediate urticarial type reaction which immediately followed the injection of Photofrin.

CASE REPORT

A 66-year-old white woman was referred for PDT [1,2] for Basal Cell Nevus Syndrome (BCNS), manifest since age 30. Her family history is positive for BCNS in her mother, brother, and sister. Her past medical history includes shortness of breath, borderline hypertension, and a three-times suspicious mammogram. She has seen her family physician 3 weeks prior to PDT. She has no history of hives following stressful situations. The patient was injected for the first time with 69 ccm of Photofrin (2mg/kg for 191 lb body-weight). Immediately following the injection, she experienced itching of her ears, nose, and scalp, and developed one hive on her chin. She was immediately given 50 mg of Benadryl i.v., oxygen and 30 mg Esmolol in two divided doses because her blood pressure had risen to 222/100 mmHG and her pulse to 100/min. She responded rapidly to therapy, was observed until her blood pressure was 170/90 mmHg and her pulse 80/min and then discharged home. The following night, she awoke with dry mouth and throat, and pressure on her chest. The paramedics found her with a BP of 250/100mmHg and admitted her to the hospital. All symptoms resolved with loproressor, aspirin, and sublingual nitroglycerin. She never experienced episodes of chest pain but gave a history of shortness of breath. She denied orthopnea and paroxysmal nocturnal dyspnea, and had no palpitations prior to this episode. Upon arrival in the hospital, the BP was 180/110mmHg. The initial EKG was normal, the erythrocyte sedimentation rate was 21 mm/h. Thallium stress test was within normal limits.

DISCUSSION

Photofrin is a photosensitizing agent used in PDT. It is a mixture of oligomers formed by ether and ester linkages of up to 8 porphyrin units. Hydrochloric acid and/or sodium hydroxide may be

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